THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Socio-Economic Role of Donkeys among the Residents of Pate Island, Lamu District of the Kenyan Coast, Kenya

Dr. Wanjala, Kennedy Barasa
Lecturer, Anthropology and Sociology, School of Humanities and Social Sciences,
South Eastern Kenya University, Kenya
Mukiria P
Research Officer, Biotechnology Research Institute, Kenya
Mdachi, R
Research Officer, Biotechnology Research Institute, Kenya
Mutuku, M
Research Officer, Biotechnology Research Institute, Kenya
Alusi, P
Research Officer, Biotechnology Research Institute, Kenya
Kurgat, R
Research Officer, Biotechnology Research Institute, Kenya
Getachew, M
Research Officer, Donkey Trust, UK
Omollo, J
Research Officer, Donkey Sanctuary, Lamu, Kenya
Bukachi, S
Senior Lecturer, University of Nairobi, Kenya

Abstract:
Donkeys play an important role in rural economies particularly in provision of draught power in developing countries. The study that yielded this information was multidisciplinary in nature and sought to understand the position of donkeys among the residents of Pate Island in Lamu, Kenya. Special focus was directed to establishing the role played by these equines amongst the communities residing on the Island and constraints faced by communities in the course of keeping and utilization of these animals. The methods of data collection that were employed to collect data included questionnaire survey (96 respondents), five key informant interviews and eight focus group discussions. The results indicate that the donkey plays important socio-economic and religious roles amongst the residents of Pate Island and concludes that the equines play a non-alienable role in the peoples' lives.

Keywords: *Donkey, pate, Lamu, constraints*

1. Introduction

Donkeys play an important role in rural economies through the provision of draught power and transport. Compared to other domestic animals, donkeys contribute a greater proportion of readily available transport needs for people living in hostile environments, enabling them to integrate into social and economic processes (Fernando 1997; Valette 2014; Khan *et al.,* 2015). In addition to their popularity in the transport sector, donkeys are perceived by researchers and people from many communities as disease resistant and hardy animals (Blakeway 1994; de Aluja and Lopez 1991; Bakkoury and Belemlih 1991). Compared to other domestic animals, donkeys are preferred because of their affordability, survivability, docile nature and ease of training and handling. More so, donkeys are able to thrive on poor quality minimally supplemented feeds has also made them popular in environments where feed shortages can seasonally become a critical problem (Pritchard, 2010). Donkeys have been reported to survive better under drought condition than any livestock species due to their small body size and low dry matter intake requirements minimizing their water and maintenance needs. This, combined with the high cost of oxen and/or the effects of animal disease, has caused many farmers to turn to the donkey as an alternative power source (Pritchard, 2010). According to Mutharia (1995), the adoption of donkeys has been mainly a result of farmer innovation and farmer-to-farmer technology transfer and has had little to do with the formal extension services.

In many countries, the donkey is the work animal which has the most to offer in assisting rural people in their quest to achieve poverty alleviation. This is particularly true in the difficult circumstances of the arid and semi-arid areas to which the donkey is naturally well-adapted (Swai and Bwanga, 2008; Khan *et al.,* 2015).

The use of donkeys as pack animals or for pulling carts has enabled small-scale farmers to participate in the market economy. Donkeys have reduced the domestic transport burden of rural women and have created employment and income-generating opportunities for many people (Fielding, 1988; Valette, 2014). Women among the Maasai community of Kenya use donkeys to fetch water, household shifting (during migration), carrying the sick to hospital, carrying sick calves, transporting shopping and pulling fencing materials needed for construction of *bomas* (Mutharia, 1995). In Botswana, donkeys are used for transporting people and goods, for transporting sand for building houses and fetching water and firewood (Aganga *et al.,* 1994).

The utilization of donkeys is also not restricted to social development functions. In Ethiopia, the animals were observed to play a role in wars through carrying of supplies and transportation of combatants. According to Marshall and Zahra Ali (2000), during recent wars in Ethiopia, donkeys kept guerrilla armies supplied with food, guns and ammunition. Some rural Ethiopians also recall that during past famines, they survived by someone bringing in food on donkeys. In some communities, particularly those engaged in agricultural activities, donkeys also help in cultivation and weeding using single donkeys or teams of donkeys. However, donkeys in Kenya recently acquired another new role previously unknown or not widespread - of being meat producers. This has seen construction of abattoirs for the animals in some areas of Kenya's Rift Valley and Central counties.

The donkey, therefore, has an important role to play towards community welfare, particularly amongst poor communities. Similar to any other livestock production, organizations and other stakeholders interested in making a positive impact on donkey keeping and the general welfare should be interested in keeping conditions. Therefore, knowledge and understanding of donkey production system, inclusive of roles, opportunities and constraints are important for designing and implementing informed welfare and community development programmes where these animals are kept and utilized. The benefits come to the keepers mainly through provision of improved pack and draft power. This paper presents the results of a socio-economic survey on the role played by donkeys among the inhabitants of Lamu Islands at the Kenyan coast.

2. Methods

The activities that generated the data presented herein were carried in four villages of Pate Island, Lamu district, Kenya, namely Faza (also known as Rasini), Tchundwa, Bwajumwali and Kizingitini between April 2010 and December 2015. The activity was accomplished through field visits. Data were collected through the use of a structured questionnaire, key informant interviews and focus group discussions. The questionnaire was designed to capture background information of respondents that included demographic variables such as age, sex, highest educational level attained and the economic activities mainly engaged in, historical issues to establish the history of the donkey on the island and the role of donkeys in people's livelihoods.

A total of 96 respondents from the four villages of the Island were interviewed and their responses documented. The farmers were selected randomly from the local population after stratification of their respective villages into strata that guided the boundaries for daily activities. A total of eight focus group discussions (two discussions from every village) and five key informant interviews were undertaken to collect more qualitative information relating to the variables under investigation and for triangulation of information generated from the questionnaire survey. This was done to enhance authenticity.

3. Results

The four villages were pre-dominantly occupied by the Bajun people, one of the Kenyan coastal inhabitants. However, it emerged during focus group discussions (FGDs) that other communities such as the Somali and Borana were also found in the villages albeit in smaller numbers. Majority of those interviewed 41.7% (N=40) fell in the age range 21-30 years while those above 50 years were 13.5%. This indicates that this age range is the most available for inclusion in any interventions as they were also actively involved in donkey keeping and utilization activities.

A focus on the highest education attained indicated that majority of the respondents 69.8% (N=67) had attained primary level of education with those without any formal education accounting for 15.6%. There was however no statistically significant difference between the four villages when comparison of highest level of education attained was made ($P>0.005$).

As far as economic activities in the four villages were concerned, findings indicate that 38.5% (N=37) of respondents were engaged in farming as an economic activity, 39.6% (N=38) were engaged in fishing activities while 8.3% (N=8) were engaged retail business for shop merchandise. The rest of the respondents engaged themselves, among other activities, in donkey related activities such as breeding for sale. A simple cross tabulation of villages and economic activities revealed that there were some differences between villages as far economic activities engaged in by locals were concerned.

Majority of respondents from Faza and Kizingitini were engaged in fishing activities while in Tchundwa and Bwajumwali, the majority of respondents were farmers (See Table 1 below).

	Village				
Economic activity of respondent	T chundwa	Kizingitini	Bwajumwali	Faza	% Total
. Farmer	13 (54.2%)	3 (12.5%)	16 (66.6%)	5 (20.8%)	37 (38.5%)
. Business	5 (20.8%)	1(4.2%)	1(4.2%)	1(4.2%)	8 (8.3%)
Fishing	5 (20.8%)	14 (58.3%)	4 (16.6%)	15 (62.4%)	38 (39.6%)
Donkey work	1 (4.2%)	2 (8.4%)	1(4.2%)	0 (0%)	4 (4.2%)
Madrasa Teacher	0 (0%)	0 (0%)	1(4.2%)	1(4.2%)	2 (2.1%)
Mason	0 (0%)	0 (0%)	1(4.2%)	1(4.2%)	2 (2.1%)
Formal employment	0 (0%)	4 (16.6%)	0 (0%)	1(4.2%)	5 (5.2%)
Total	24 (100%)	24(100%)	24(100%)	24(100%)	96 (100%)

Table 1: A Village Focused Comparative View of Economic Activities Engaged in by Respondents

Generally, in the four villages, as far as ownership of donkeys was concerned, 34.4% (N=33) of respondents had one donkey each. The ownership ranged from 1-9 donkeys per respondent. However, in terms of individual villages, respondents with the highest mean number of donkeys were from Kizingitini with an average of 3 donkeys per respondent (See Table 2 below).

Village	Mean	Mode	Range	
			Lowest	Highest
Faza	2.70	1	1	9
Tchundwa	1.75	1	1	6
Bwajumwali	2.91	2	1	8
Kizingitini	2.83	3	1	9

Table 2: Number of Donkeys Owned by Respondents from the Four Villages

In the four villages the Mean of donkeys kept by respondents was 2.68 donkeys per respondent, Mode =1 and Std. dev = 2.028.

Respondents engaged themselves in various economic activities. The donkey provided an important source of income for the inhabitants of the four villages. They were used to transport shop merchandise, building materials, farm produce and also acted as a means of transport to people during inter and intra village travels (See Plates 1 & 2 below). On this role of donkeys, a key informant had the following to say:

> You people from up-country know about motor vehicles but with us our vehicles are donkeys. Anybody who does not own a donkey is considered a very poor person. Our lives and donkeys are inseparable. The materials that were used to construct buildings here and the food that we eat on this Island have donkey signatures.
> (A Key informant from Bwajumwali village)

The donkeys were also used to accomplish socio-religious functions such as taking part in racing activities to mark the end of religious events on the Muslim calendar such as end of Ramadhan (Idl fitri), celebration of the birth of Prophet Mohamed (Mashindano ya mfungo sita) and pilgrimage-Hajj (Mashindano ya mfungo tatu).

Among the inhabitants of the four villages, livestock and donkey issues were left to the men. Through observation and survey findings, men were responsible for handling the donkeys. This was also affirmed during key informant interviews and focus group discussions in the four villages. A gender focus on the donkeys in the four villages revealed that issues involving disease and vector control or handling were predominantly a man's function (See FIGURE 3 and 2 below).

Figure 1: A Villager Transporting Merchandise on the Back of aDonkey in Tchundwa Village

Figure 2: A Donkey Being Loaded with Roofing Materials in Faza Village for Transport to a Different Destination

Majority of the donkeys were bought from either the same village or the neighbouring villages. However, 25% (N=24) of respondents acquired their donkeys from Lamu main Island and transported them to their respective villages by boat. As far as cost was concerned, results indicate that the cost of young donkeys, both male (*kifaali)* and female *(kikoo)* did not differ significantly. The young donkeys were sold or bought at between Ksh. 3000 (US$40) and Ksh.5000 (US$67). The cost of mature male donkeys ranged from Ksh. 8000 (US$ 107) to Ksh. 20000(US$ 267) while that of mature females ranged from Ksh. 6000 (US$ 80) to Ksh. 16000 (US$213). According to informants, the pricing was based on body size and condition of the donkey. However, the male donkey was valued slightly higher than females because males were comparatively perceived to be more prolific in terms of work than the females. This was also the general opinion among participants in focus groups discussions and key informant interviews in the four villages. One of the key informants summarized this view as follows:

> We go far with our donkeys when transporting goods or traveling to meet friends and relatives. Female donkeys (Koo) are not as energetic as the males, and therefore they (females) cannot go far. Males are therefore valued more
> (A key informant from Faza Village)

Majority of respondents kept donkeys. However, other livestock species were also kept (See Figure 3 below). Apart from donkeys, the other livestock kept in the four villages included cattle, sheep and goats. When it came to ranking of the most preferred between the above animal species, the donkey was ranked the highest in preference to a mean rank score of 1.13 compared to the other species (See Table 3 below).

Animal SPP	**Measurement**			
	N	Mean score	Ranked Position	Std Deviation
Cattle	96	2.35	2	0.615
Sheep	96	3.95	4	0.223
Goats	96	2.56	3	0.662
Donkeys	96	1.13	1	0.363

Table 3: Ranking of the Most Preferred Animal amongst Selected Domestic Animals
Nb. Position 1 Ranking Indicates Most Preferred Animal Species

This ranking was also supported by participants in focus group discussions during pair-wise ranking exercise in all the four villages (See Table 4 below).

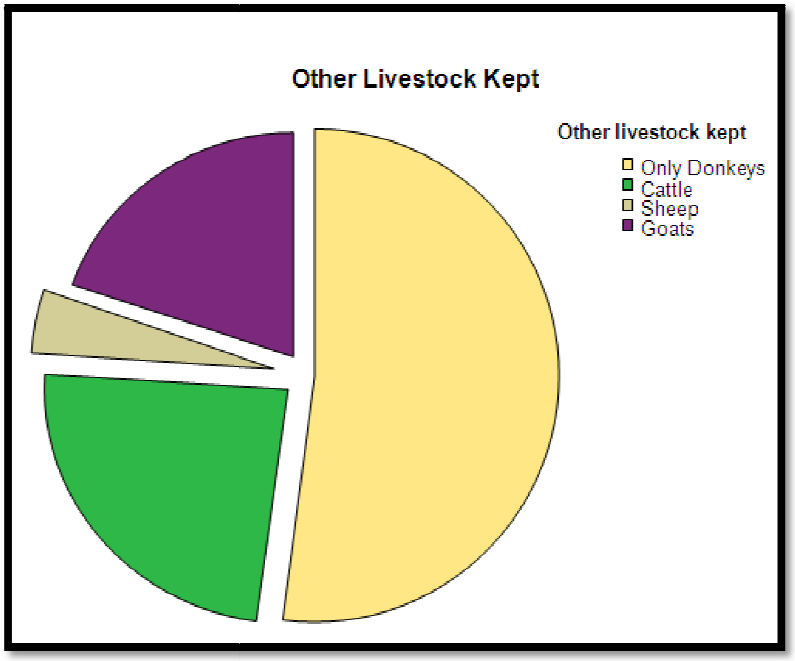

Figure 3: Animal Species Kept in Combination with Donkey

Animal Spp.	Village								General Ranking In villages
	Faza		Tchundwa		Bwujumwali		Kizingitini		
	FGD 1	FGD 2	FGD 1	FGD 2	FGD 1	FGD 2	FGD 1	FGD 2	
Cattle	||	||	||	||	||	||	||	||	2
Donkeys	|	|	|	|	|	|	|	|	1
Goats	|||	|||	|||	|||	|||	|||	|||	|||	3
Sheep	𝍸	𝍸	𝍸	𝍸	𝍸	𝍸	𝍸	𝍸	4

Table 4: Results of a Pair-Wise Ranking Exercise for Animal Species Kept

4. Discussion and Conclusion

As indicated in the results, the donkey was mainly used for transport of people, building materials and shop merchandise from one village to another or during intra village missions. The method mainly used was packing. This finding is not restricted to the research site as it is also consistent with findings of other researchers such as Fielding (1988), Pritchard (2010), Mutharia, (1995) Khan *et al.,* (2015) and Nega and Demisse (2016). However, direct packing resulted to donkeys only carrying a limited quantity of goods and an injurious undertaking to the donkeys. Cases of saddle sores (back sores) were observed. These sores were also mentioned by respondents as a problem in the research site. According to Pritchard (2010), the sores are caused by the lack of any type of saddle or protection for the donkeys' backs. Other wounds that were frequently seen included abrasions due to friction with improper harness and harnessing materials such as nylon ropes and strips of car tyres. The presence of wounds in donkeys was an indication of overloading, over beating and poor management practices and this may point to the need for increased sensitization of keepers for improved donkey management practices and increased productivity.

According to Marshall and Zahra Ali (2000), access to donkey appropriate technologies is necessary to not only reduce time for transport missions and enhance healthy animals, but may also influence access to resources. In areas where donkeys and /or their services are hired out like Lamu district, there is a high potential for profit. Income could be enhanced with addition of appropriate donkey carts or packing technologies. Pritchard (2010) observed that the use of wheeled cart pulled by donkeys in the Eastern Shewa region of Ethiopia came with social and economic benefits to the donkey users. The use of donkeys for pulling carts enabled small scale farmers to participate in the market economy and

thus uplifted their economic status. This is also consistent with the conclusion made by Valette (2015); Pritchard (2010) and Behnke and Nakirya (2012). Whereas introduction of donkey drawn carts may be a challenging undertaking in villages on Pate Island due to their historic architectural designs, inter village transport with wheeled donkey carts is a possibility as the villages followed the nucleated pattern of settlement. Therefore, the donkey has the potential of playing a more significant role in improving the economic status of the people of Pate Island.

The gender differences in the ownership and access to use of donkeys vary according to the different social arrangements prevailing in different cultures. Whereas the donkey has a lower value and is usually associated with women amongst some communities such as the Maasai and Samburu of Kenya and, in others associated with poverty on the part of keepers, the situation was different amongst the inhabitants of Faza, Tchundwa, Mbwajumwali and Kizingitini villages. Amongst the Bajun people, the predominant occupants of the four villages, the position of the woman was in the home (house). This differs from the findings of Leyland (2004) who found that, women among the Maasai people participated in many activities distant from their residential homes carrying goods such water and firewood using donkeys. Therefore, the tenets of gender equality relating to donkey usage in the four villages had a diminished value.

This paper concludes that the donkey has an important socio-economic and religious role to play amongst the lives of inhabitants of Lamu district in Kenya.

5. Acknowledgement

This study was made possible following the initial funding from The Donkey Trust, UK. We also acknowledge the support from KALRO-Biotechnology Research Institute and The Donkey Sanctuary, Lamu, Kenya.

6. References

i. Aganga A.,Tsopito C M and Seabo D. (1994). Donkey power in rural transportation: a Botswana case study. Appropriate Technology Journal 21 (3): 32-33.Intermediate Technology Publications, London, UK.
ii. Bakkoury, M and Belemlih, A. (1991). Some Aspects of the Use of Equines in Urban Area of Morocco. In Fielding D and Person RA (Editors). Donkey, Mules and Horses in Tropical Agricultural Development, CTV, Edinburgh pp 26-27.
iii. Behnke, R., and Nakirya, M. (2012). Contribution of Livestock to the Ugandan Economy, IGAD LPI Working Paper No. 02 – 12. Available at https://cgspace.cgiar.org/bitstream/handle/10568/24970/IGAD_LPI_WP_02-12.pdf.
iv. Blakeway, S.J. 1994. The Welfare of the Donkeys. MSc Thesis, University of Edinburgh, UK.
v. De Aluja, A.S and Lopez, F. (1991). Donkeys in Mexico. In Donkeys, Mules and Horses in Tropical Agricultural development. CTV, Edinburgh.
vi. Fernando, P. (1997). Donkeys and development: socio-economic issues in the use and management of donkeys. pp 26-37 in Starkey P (ed) Donkey power benefits. Workshop Reader Volume 1.
vii. Fielding D. (1988). Pack transport with donkeys. Appropriate Technology Journal 15 (3) 11-13. Intermediate Technology Publications. London. UK.
viii. Khan, M. S., Muhammad, G., Uddin, S., Ahmad, J., Gandahi, M. U., Khatak T. A and Arif, M. (2015). Donkey conservation in Pakistan: Research and welfare needs in rural and semi-urban areas of Kyber Pakhtoon Khawa, Pakistan. Advances in Applied Science Research, 2015, 6(4):118-124.
ix. Leyland J. (2004). The Use of Donkeys for Transport in Kajiado, Kenya. Available at http://www.dfid.gov.uk/r4d/PDF/outputs/R7350h.pdf.
x. Marshall K and Zahra A. (2000). Gender issues in donkey use in rural Ethiopia. pp. 64-70 in: Starkey P and Fielding D (eds), Donkeys, people and development. A resource book of the Animal Traction Network for Eastern and Southern Africa (ATNESA). ACP-EU Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, The Netherlands. 244p. ISBN 92-9081-219-2
xi. Mutharia L. (1995). A participatory assessment of pastoral resources and their utilization in selected areas of Kajiado District. Intermediate Technology Kenya.
xii. Nega M and Demisse C. (2016). Management Practices of Working Donkeys in Urban and
xiii. Rural Areas of Assosa District, Benishangulgumuze Region, Ethiopia. World Journal of Agricultural Sciences 2016.12 (5): 346-356.
xiv. Pritchard J. (2010); Animal traction and transport in the 21st Century: Getting the Priorities Right, The Veterinary Journal, Volume 186(3) pp.271-274.
xv. Swai E. S and S J Bwanga. 2008. Donkey Keeping in Northern Tanzania: Socio-economic Roles and Reported Husbandry and Health Constraints. Available at http://www.cipav.org.co/lrrd/lrrd20/5/swai2.
xvi. Valette D. (2014). Voices from Women, Invisible Helpers: Women's views on the contributions of working donkeys, horses and mules to their lives, The Brooke, London.
xvii. Valette D. (2015). Invisible Helpers: The Economic Contributions of Working Donkeys, Horses and Mules to Livelihoods. The Brooke, London.